

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Amendment of Part 101 of the)	
Commission's Rules to Facilitate the)	WT Docket No. 10-153
Use of Microwave for Wireless)	
Backhaul and Other Uses and to)	
Provide Additional Flexibility to)	
Broadcast Auxiliary Service and)	
Operational Fixed Microwave Licensees)	WT Docket No. 09-106
)	
Request for Interpretation of Section)	
101.141(a)(3) of the Commission's)	
Rules Filed by Alcatel-Lucent, Inc., <i>et al.</i>)	
)	
Petition for Declaratory Ruling Filed)	
By Wireless Strategies, Inc.)	WT Docket No. 07-121
)	
Request for Temporary Waiver of)	
Section 101.141(a)(3) of the)	
Commission's Rules Filed by Fixed)	
Wireless Communications Coalition)	

**REPLY COMMENTS OF THE
FIXED WIRELESS COMMUNICATIONS COALITION**

The Fixed Wireless Communications Coalition ("FWCC") hereby replies to the comments submitted in the above-captioned proceeding addressing the proposal¹ to allow the use of auxiliary microwave stations in the point-to-point microwave services.²

¹ See *Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses and to Provide Additional Flexibility to Broadcast Auxiliary Service and Operational Fixed Microwave Licenses; Request for Interpretation of Section 101.141(a)(3) of the Commission's Rules Filed by Alcatel-Lucent, Inc., et al.; Petition for Declaratory Ruling Filed by Wireless Strategies, Inc.; Request for Temporary Waiver of Section 101.141(a)(3) of the Commission's Rules Filed by Fixed Wireless Communications Coalition, Notice of Proposed Rulemaking and Notice of Inquiry*, WT Docket Nos. 10-153, 09-106 and 07-121 (rel. Aug. 5, 2010) ("NPRM/NOI").

FWCC has shown that this proposal would increase the risk of interference and create distorted incentives that would lead to less efficient use of the spectrum. More than twenty other parties agree with FWCC that the proposal is not in the public interest, with many detailing the harm that would come should the FCC adopt the proposal.

In contrast, just six parties support the proposal.³ Their positions are based on unsupported claims of unused spectrum, lack of harm to point-to-point stations, and speculative spectrum efficiencies. In light of the lack of support, the Commission should not give these claims credence.

For these reasons as well as those set out in FWCC's comments and others, the FCC should reject the proposal for auxiliary microwave station operations.

DISCUSSION

The technical information in the record establishes that it would be contrary to the public interest to permit auxiliary microwave stations.

Serious Concerns Expressed

Opponents of the auxiliary microwave station proposal expressed serious concern with the likelihood of harm to existing users – concerns often supported by technical showings. One comment is representative of the views of many:

One could hardly imagine a more damaging and ill-conceived concept than overlaying a point-to-multipoint service into the well-ordered, high quality, high density, congested but still interference free Part 101 bands.⁴

² These reply comments are limited to the auxiliary microwave station issue. FWCC is filing separate reply comments addressing the remaining issues raised in the NPRM/NOI.

³ One other party, Motorola, supported the flexibility inherent in the proposal, but urged the Commission to proceed with caution and not act until it made further inquiry. *See* Comments of Motorola at 8-9.

⁴ Comments of San Mateo County at 3.

Many parties agreed that the proposal was based “on a flawed premise,”⁵ “dubious or simply wrong” assumptions,⁶ and “dubious factual assumptions and false generalizations.”⁷ In sum, WSI’s proposal is “fundamentally flawed and non-credible . . . one that the Commission should finally dispense with, once and for all.”⁸ As AT&T exhorted, “the Commission must regulate based on facts, not hollow promises.”⁹

The comments also addressed how adopting the proposal would destroy the operating environment of the microwave bands. As Comsearch explained, the proposal “would result in maximizing the operating area of the auxiliary stations at the expense of other licensees.”¹⁰ T-Mobile asserted that the “potential harm from operating auxiliary stations is well documented, and outweighs any potential benefits that may arise from their use.”¹¹ AT&T noted that the proposal “remains problematic.”¹² The BloostonLaw Licensees stated that, “[t]he proposed rules therefore appear to promote inefficient utilization of the microwave frequency spectrum.”¹³ Clearwire expressed concern with the “deleterious impact on existing and future use of high capacity FDD systems . . . without any obvious countervailing benefit.”¹⁴ And NSMA stated that “it would be inappropriate to waste the remaining capacity” in the point-to-point bands by allowing auxiliary point-to-multipoint microwave stations.¹⁵

Especially important is the concern expressed by a number of public safety and critical infrastructure entities about the impact on their safety-of-life operations should the proposal be adopted. San Mateo County, explaining that its public safety agencies

⁵ Comments of Comsearch at 4.

⁶ Comments of Stratos Offshore Services Company at 4.

⁷ *Id.*

⁸ Comments of EIBASS at 8.

⁹ Comments of AT&T at 18-19.

¹⁰ Comments of Comsearch at i.

¹¹ Comments of T-Mobile at 3.

¹² Comments of AT&T at 18-19.

¹³ Comments of the BloostonLaw Licensees at 6.

¹⁴ Comments of Clearwire Corporation at 9-10.

¹⁵ Comments of the National Spectrum Management Association at 9.

rely heavily on microwave communications, stated that it was:

[E]xtremely concerned that the introduction of thousands of quasi-licensed, unregulated 'auxiliary stations' into the highly congested Part 101 point-to point bands will lead to unnecessary and unpredictable harmful interference with our existing Public Safety Communications Network.¹⁶

The City of Ft. Lauderdale, which uses microwave stations to backhaul critical public safety communications, opposed both the use of auxiliary stations and TDD operations, explaining that this would have a negative impact on the city's public safety radio operations.¹⁷ The Washington State Patrol noted that it relies upon microwave systems to carry "mission critical traffic for multiple public safety agencies," and expressed concern that there would be an "overwhelming potential for interference" to these microwave systems should auxiliary stations be allowed.¹⁸ The Holy Cross Electric Association said that the uncoordinated activities of microwave stations would "significantly increase the potential for interference for communications critical to our electric utility operations."¹⁹ And Stratos Offshore Services, a provider of critical wireless communications for the oil and gas industry, noted that it would be impossible for it to continue to provide its services should interference in the bands increase, which it believed would occur should the Commission adopt the proposed rules.²⁰

In addition, particular concern was expressed about the existence and potential of WSI's so-called "smart antennas." As EIBASS explained:

[R]equests by the Society of Broadcast Engineers, Inc. (SBE) and the National Spectrum Management Association (NSMA) for credible proof of such performance have, as best EIBASS can tell, been ignored. Absent evidence to the contrary, EIBASS believes that DRE microwave antennas may not exist. . . . EIBASS questions whether a physically small phased

¹⁶ Comments of San Mateo County at 1 (noting that the county recently had received prior coordination notices for systems intending to operate under the proposed rules at "unprecedented" higher power and using a "radical departure" from antenna performance and design).

¹⁷ Comments of the City of Ft. Lauderdale at 1 (filed Oct. 22, 2010).

¹⁸ Comments of the Washington State Patrol at 1 (filed Oct. 18, 2010).

¹⁹ Comments of Holy Cross Electric Association, Inc. at 1 (filed Oct. 21, 2010).

²⁰ Comments of Stratos Offshore Services Company at 5.

array DRE antenna meeting FCC Category A, or even Category B, criteria will ever be a commercially practical product. . . .²¹

AT&T also noted that neither specifications for WSI's so-called "smart antennas" nor independent testing results have been made public (after three years), and that it would be premature to even consider permitting auxiliary microwave stations until basic and independent testing is performed.²² And Clearwire stated that WSI's proposal "appears to be highly theoretical" and "is devoid of field testing data."²³

The amount of concern expressed over the auxiliary microwave proposal is overwhelming, and supported by technical showings.²⁴ In contrast, there are no countervailing considerations, only unsupported assertions.

There is No "Greenfield" of Unused Spectrum

The auxiliary microwave station proposal is premised on the claim that there exists a "greenfield" of spectrum in the keyhole-shaped area around a main link that could be used by auxiliary stations without harm to primary microwave stations.²⁵ There is now vast information in the record showing the falsity of this claim. As Comsearch explained, the keyhole-shaped area is the coordination area to be studied, not an exclusion zone.²⁶ Ceragon Networks discussed the "[e]vidence of inaccuracy" of the claim,²⁷ while EIBASS described the concept as "flawed and bogus."²⁸ And U.S.

²¹ Comments of EIBASS at 7.

²² Comments of AT&T at 18.

²³ Comments of Clearwire Corporation at 10.

²⁴ See, e.g., Comments of Comsearch at 8-16; Comments of Ceragon Networks, Ltd. at 6-14; Comments of EIBASS at 8-9; Comments of Stratos Offshore Services Company at 5-6 and n.8; see also Ex Parte Comments of EIBASS, WT Docket No. 07-121 (filed April 8, 2010).

²⁵ See Comments of WSI at 3, Comments of WISPA at 4, and Comments of Sprint at 4 (claiming that because the main link will be coordinated, no interference would result from auxiliary stations deployed "in the radius that a microwave's beam creates.").

²⁶ Comments of Comsearch at p. 8.

²⁷ Comments of Ceragon at 6-7.

²⁸ Comments of EIBASS at 8.

Cellular and Stratos noted that the side lobe spectrum is frequently reused in the spectral present environment.²⁹

Response to Comments from Supporters

The six supporters, including the two that advocated most for auxiliary microwave stations (Wireless Strategies, Inc. and Sprint), failed to place any technical evidence into the record showing that the proposed rule changes would work as they suggest, *i.e.* to the benefit of some without detrimental effects on others.

Notwithstanding questions in the record regarding the existence and adequacy of antennas that may be used for the auxiliary microwave stations,³⁰ the parties failed to provide further information regarding the so-called “smart antennas” that WSI claims will allow for the benign use of auxiliary stations. And while WSI made claims about “well engineered auxiliary stations” not interfering with main links,³¹ beyond this cursory statement it provided no discussion of what this means or how it works.³² Additionally, no party provided information rebutting the technical showings that the proposal is incompatible with present point-to-point microwave operations.³³

As for the remaining supporters, all are potential new entrants, without experience using or coordinating in the microwave bands, and they merely state that they would like to use the band without addressing the technical questions raised by

²⁹ Comments of U.S. Cellular at 6; Comments of Stratos Offshore Services Company at 5.

³⁰ See *e.g.*, NPRM/NOI at ¶ 47.

³¹ Comments of WSI at 7.

³² WSI makes new unsubstantiated claims in its comments, including extreme statements on claimed spectrum efficiencies, backhaul costs and traffic capabilities. Comments of WSI at 1 and 6. These claims are not only false, they attempt to mask the true contrary effects of the auxiliary multipoint station proposal. FWCC and other parties have shown that the proposal would result in less efficient use of spectrum. See Supplemental Comments of FWCC at 9-11; Comments of Comsearch at 9-12. The FCC should not rely on WSI's unsupported claims – or any others – in determining the outcome of this proceeding.

³³ See *supra* n.24.

the FCC.³⁴ These parties' comments add nothing meaningful for the Commission to consider.

Of note, the few supporting comments contradict each other in terms of how the auxiliary microwave stations could be used. Sprint envisions using auxiliary links in dense, urban environments,³⁵ which as FWCC and many others have demonstrated would have detrimental effects to the already congested spectral environment. In contrast, WISPA stated that auxiliary stations may not be possible in congested areas, suggesting that they might be used in other areas of the country.³⁶ WSI's position is that the auxiliary microwave stations can be located anywhere.³⁷ These differing positions highlight how little is understood by supporters about the ramifications of the proposed rules. The record clearly is not sufficient to support a finding that adoption of the proposed rules would be in the public interest.

CONCLUSION

Notwithstanding being given a second chance, not one party has put forth a technical showing of how auxiliary microwave stations could function successfully with other users of the microwave bands. Supporters have failed to address concerns raised by the Commission and parties to the WSI proceeding. It is clear that the time has come

³⁴ See, e.g., Comments of Mimvi and Comments of OEM Communications.

³⁵ Comments of Sprint Nextel at 7.

³⁶ Comments of WISPA at 4. WISPA discusses using auxiliary stations for a "second mile" link, *id.* at 5, though FWCC is not clear what this "second mile" is or how auxiliary stations would be used for this operation.

³⁷ Comments of WSI at 6.

for the Commission to reject the proposal for auxiliary microwave stations.

Respectfully submitted,

Fixed Wireless Communications Coalition

By: /s/
 Laura Stefani
 Joseph A. Godles

GOLDBERG, GODLES, WIENER & WRIGHT
1229 Nineteenth Street, N.W.
Washington, D.C. 20036
(202) 429-4900

Its Attorneys

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